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10/801,717	03/17/2004	Haruko Kawakami	016907-1623	1861
22428 7590 07/25/2007 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER RASHID, DAVID	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/801,717	Applicant(s) KAWAKAMI, HARUKO	
	Examiner David P. Rashid	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

All of the examiner's suggestions presented herein below have been assumed for examination purposes, unless otherwise noted.

Amendments

1. This office action is responsive to the claim and specification amendment received on 6/11/2007. **Claims 5 – 15** are pending; **claims 1 – 4** are cancelled; **claims 5 – 9** are amended; and **claims 10 – 15** are new.

Specification

2. In response to applicant's specification amendments and remarks received on 6/11/2007, the previous specification objections are withdrawn.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 5 – 6, 11 – 12, and 14 - 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al. (US 2001/0030759 A1) in view of Shimizu et al. (US 6,609,162 B1).

Regarding **claim 5**, while Hayashi discloses an image processing method (FIG. 1) for adding information (“embedment apparatus” in paragraph [0013]) to image data (“I” in FIG.1), comprising:

altering a process (FIG. 1, element 0110; “to determine a pattern arrangement to be used...” in paragraph [0091]) for adding the information (“...to be used for embedding the electronic watermark information...” in paragraph [0091]) in accordance with characteristics of at least one (the printer) of output means (“...represented by...the output resolution of the printer 109...” in paragraph [0091]) of the image data and input means (FIG. 2, element 0201) of the image data, the characteristics of the output means and the input means being specified based on both the resolutions of the output means and the input means (the characteristics are based off of both since the input means (scanner) resolution is dependent off the of resolution of the printer as disclosed in an example in paragraph [0226] wherein the printer and scanner have a resolution ration of 1:1), Hayashi does not disclose wherein the characteristics of the output means and the input means being specified based on the model names of the output means and the input means.

Shimizu discloses a data processing apparatus connected to a network containing a plurality of devices (FIG. 1) wherein model names (“Device-id;” in FIG. 5 and FIG. 6) of the output means (FIG. 1, element 102; Col. 6, lines 31 - 61) and the input means (FIG. 1, element 2903; Col. 6, line 64 – Col. 7, line 29) are specifically used for the characteristics (“Resolution;” in FIG. 5 and FIG. 6) of the output means and the input means.

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the characteristics of the output means and the input means of Hayashi to be specified based on the model names of the output means and the input means as taught by

Art Unit: 2624

Shimizu "...to provide a data processing apparatus having an improved operability which can use a realizable function via a network as if the function is provided by a single device.",

Shimizu, Col. 1, line 66 – Col. 2, line 2.

Regarding **claim 6**, while Hayashi in view of Shimizu discloses the image processing method according to claim 5, Hayashi discloses wherein at least one (the printer) of the output means ("...represented by...the output resolution of the printer 109..." in paragraph [0091]) and the input means (FIG. 2, element 0201) is selected by selection means (FIG. 1, element 0110 selects the printer as cited "OUTPUT RESOLUTION OF PRINTER" in FIG. 1), and

a process (paragraph [0091]) for adding the information is performed in accordance with characteristics ("...represented by...the output resolution of the printer 109..." in paragraph [0091]) of the selected output means or the selection input means.

Regarding **claim 10**, while Hayashi discloses an image processing apparatus (FIG. 1), comprising:

a subjecting device (FIG. 1) which subjects image data ("I" in FIG. 1) to a predetermined process (paragraph [0091]) in accordance with a characteristic of information ("...represented by...the output resolution of the printer 109..." in paragraph [0091]), characteristics of the output means and the input means being specified based on both the resolutions of the output means and the input means (the characteristics are based off of both since the input means (scanner) resolution is dependent off the of resolution of the printer as disclosed in an example in paragraph [0226] wherein the printer and scanner have a resolution ration of 1:1);

an adding device (FIG. 1, elements 0105, 0110) which adds the information to the image data that has been subjected to the predetermined process; and

Art Unit: 2624

an extracting device (FIG. 2, elements 0202, 0204) which extracts the information from the image data to which the information has been added; Hayashi does not disclose wherein the characteristics of the output means and the input means being specified based on the model names of the output means and the input means.

Shimizu discloses a data processing apparatus connected to a network containing a plurality of devices (FIG. 1) wherein model names (“Device-id;” in FIG. 5 and FIG. 6) of the output means (FIG. 1, element 102; Col. 6, lines 31 - 61) and the input means (FIG. 1, element 2903; Col. 6, line 64 – Col. 7, line 29) are specifically used for the characteristics (“Resolution;” in FIG. 5 and FIG. 6) of the output means and the input means.

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the characteristics of the output means and the input means of Hayashi to be specified based on the model names of the output means and the input means as taught by Shimizu “...to provide a data processing apparatus having an improved operability which can use a realizable function via a network as if the function is provided by a single device.”, Shimizu, Col. 1, line 66 – Col. 2, line 2.

Regarding **claims 11 and 12**, while Hayashi in view of Shimizu disclose the image processing apparatus according to claim 10, Hayashi discloses wherein the information is a frequency component (“high frequency” and “low frequency” in paragraph [0212]; FIG. 5).

Regarding **claim 14**, while Hayashi in view of Shimizu disclose the image processing apparatus according to claim 10, Hayashi in view of Shimizu does not further comprise an inputting device which inputs the model names.

Shimizu discloses a data processing apparatus connected to a network containing a plurality of devices (FIG. 1) that comprises an inputting device (FIG. 2, element 206 “for transmitting a device profile” (Col. 5, lines 19 – 20) such as those in FIG. 5 or FIG. 6) which inputs the model names (“Device-id;” in FIG. 5 and FIG. 6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the image processing apparatus of Hayashi in view of Shimizu to further comprise an inputting device which inputs the model names as taught by Shimizu “...to provide a data processing apparatus having an improved operability which can use a realizable function via a network as if the function is provided by a single device.”, Shimizu, Col. 1, line 66 – Col. 2, line 2.

Regarding **claim 15**, while Hayashi in view of Shimizu disclose the image processing apparatus according to claim 10, Hayashi in view of Shimizu does not teach wherein the inputting device includes a control panel.

Shimizu discloses a data processing apparatus connected to a network containing a plurality of devices (FIG. 1) that teaches wherein the inputting device (FIG. 2, element 206 “for transmitting a device profile” (Col. 5, lines 19 – 20) such as those in FIG. 5 or FIG. 6) includes a control panel (FIG. 2, element 208; Col. 2, lines 24 – 27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the inputting device of Hayashi in view of Shimizu to include a control panel as taught by Shimizu “...to provide a data processing apparatus having an improved operability which can use a realizable function via a network as if the function is provided by a single device.”, Shimizu, Col. 1, line 66 – Col. 2, line 2.

5. **Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al. (US 2001/0030759 A1) in view of Shimizu et al. (US 6,609,162 B1) and Sato et al. (US 6,390,598 B2)

While Hayashi in view of Shimizu disclose the image processing method according to claim 5, wherein a resolution of at least one of the output means and the input means are selected by selection means (refer to references/arguments in claim 5), Hayashi in view of Shimizu does not teach wherein a tone pattern cycle and direction of at least one of the output means and the input means selected by selection means.

Sato et al. teaches an image processing method (“Accordingly, an object of the present invention is to increase image quality without excessively decreasing printing speed.”, column 2, line 23) wherein a resolution (“Resolution conversion module 97 has the role of converting the resolution (in other words, the pixel count per unit length) of the color image data handled by application program 95 to resolution that can be handled by printer driver 96.”, column 5, line 44), AND a tone pattern cycle and direction of at least one of the output means and the input means are selected by selection means (The output means is the printer reference numeral 20 and input means in the scanner reference numeral 80 as shown in FIG. 2. The control circuit reference numeral 40 may be the same selection means from that disclosed by both Iwamura and Miyake (refer to the references cited in claim 5)).

Sato et al. discloses “nozzles” as the elements printing and scanning the dots as follows: “In order to attain the above and the other objects of the present invention, there is provided a method of printing by forming ink dots on a print medium. The printing method comprises the steps of providing a print head having a plurality of nozzles arrayed along a sub-scanning

Art Unit: 2624

direction for ejecting same ink; allocating $n(j)$ number of nozzles to a j -th main scan line in a selected area on the print medium where $n(j)$ is an integer of two or more, the integer $n(j)$ for some main scan lines being set at a different value from that for other main scan lines; positioning each of the $n(j)$ number of nozzles on the j -th main scan line; and driving each of the $n(j)$ number of nozzles, in response to given print data, to enable the nozzle to form dots intermittently at a rate of one in $m \cdot \text{times} \cdot q$ dot positions on the j -th main scan line during one main scan, m being an integer of 1 or more, and q being an integer of 2 or more, to thereby complete dot formation on the j -th main scan line with the $n(j)$ number of nozzles during $n(j)$ number of main scans.”, column 2, line 27.

According to Sato et al., the tone pattern cycle and tone pattern direction are the nozzle pattern cycle: “When sub-scan feed amount L gets greater, a nozzle pattern cycle gets longer.”, column 17, line 43 and direction “At the right side of FIG. 5(A) is shown the ordinal number of the nozzle that records dots on each raster line. With the raster lines drawn by a dotted line extending in the right direction (main scan direction) from the circles that indicate the sub-scanning direction position of the nozzles, at least one of the raster lines above or below this cannot be recorded, so in fact, dot recording is prohibited.”, column 7, line 58.).

It would have been obvious at the time the invention was made to one of ordinary skill in the art for the pattern arrangement determination unit of Hayashi in view of Shimizu to select a tone pattern cycle and direction of at least one of the output means and the input means as taught by Sato et al. “...to increase image quality without excessively decreasing printing speed.”, column 2, line 23.

Art Unit: 2624

6. **Claims 8 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al. (US 2001/0030759 A1) in view of Shimizu et al. (US 6,609,162 B1) and Trelewicz et al. (US 6,912,674 B2).

Regarding **claim 8**, while Hayashi in view of Shimizu disclose the image processing method according to claim 5, Hayashi in view of Shimizu does not teach further comprising: printing out a test pattern in advance by output means that is used; reading the test pattern by input means; and altering a process for adding the information in accordance with a result of reading.

Trelewicz et al. teaches an image processing method (“...a method triggers a printer to initiate an embedding algorithm...”, column 1, line 44) comprising:

printing out a test pattern in advance by output means that is used (“A number of events may trigger the process to begin. For example, the printer 106 may be configured to run a self-analysis application at certain time intervals. Alternatively, a customer or technician could be experiencing problems with the printer and manually requests a test page to be printed by pushing a "test page" button.”, column 4, line 64.);

reading the test pattern by input means (“The printed data may later be scanned, run through analysis software, and the embedded data is returned. The embedded data can then be used to diagnose printer problems or to serve as a digital notary.”, column 1, line 48.); and

altering a process for adding the information in accordance with a result of reading (“The controller/processor unit 208 encodes this information, at step 306 and inserts it into the page to be printed by one of several methods. There are two basic methods of embedding data, which may be used independently of each other, or in combination. In the first method, the pels

Art Unit: 2624

themselves may be modified, through the addition or subtraction of pels near existing pel groupings in the image, for which there is existing technology on the method of embedding so that the perceptual print quality is not affected. In the second, the printer 106 may make selective use of toners or inks 212 with different properties e.g., a toner or ink 212 with detectable magnetic properties may be used in specific areas, so that the appearance of the print is unchanged, but a magnetic scanner will be able to detect the underlying pattern.”, column 3, line 60. Since there exists multiple methods for adding the embedded data before printing, it is inherent that reading the result may in itself conclude the need for another method for adding the embedded data.).

It would have been obvious to one ordinary skilled in the art the time the invention was made for the image processing method of Hayashi in view of Shimizu to further comprise: printing out a test pattern in advance by output means that is used; reading the test pattern by input means; and altering a process for adding the information in accordance with a result of reading a taught by Trelewicz et al. so that “[t]he embedded data can then be used to diagnose printer problems or to serve as a digital notary.”, Trelewicz, column 1, line 50.

Regarding **claim 9**, while Hayashi in view of Shimizu and Trelewicz disclose the image processing method according to claim 8, Hayashi in view of Shimizu and Trelewicz does not teach wherein the test pattern is a patch or a tone pattern, which includes at least an intermediate level.

Trelewicz et al. discloses an image processing method (“...a method triggers a printer to initiate an embedding algorithm...”, column 1, line 44) that teaches a test pattern as a patch or a tone pattern (refer to reference cited in claim 8, in specific “...selective use of toner...” which

reads on “tone pattern”), which includes at least an intermediate level (refer to reference cited in claim 8, in specific “...with detectable magnetic properties may be used in specific areas...” which reads on “at least an intermediate level”).

It would have been obvious to one ordinary skilled in the art the time the invention was made for the test pattern of Hayashi in view of Shimizu and Trelewicz to be a patch or a tone pattern, which includes at least an intermediate level as taught by Trelewicz et al. “...to detect the underlying pattern.”, column 4, line 6.

7. **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al. (US 2001/0030759 A1) in view of Shimizu et al. (US 6,609,162 B1) and Macy et al. (US 6,823,455 B1).

Regarding **claim 13**, while Hayashi in view of Shimizu disclose the image processing apparatus according to claim 10, Hayashi in view of Shimizu does not teach wherein the predetermined process eliminates, from frequency characteristics of the image data, a frequency characteristic that is possibly confused with the information.

Macy et al. teaches an image processing method (“...a platform and corresponding method to produce and embed a digital watermark having enhanced invisibility, detection reliability, and/or robustness.”, column 4, line7), wherein the predetermined process eliminates, from frequency characteristics of the image data, a frequency characteristic that is possibly confused with the information (“As an option, the sub-frame may undergo a filtering scheme to partially remove noise contributed by the original image in order to further enhance detection

Art Unit: 2624

reliability of the watermark. This noise abatement filtering scheme involves subtraction of a computed local mean signal value of pixels within the frame (1030).”, column 9, line 43.).

It would have been obvious at the time the invention was made to one of ordinary skill in the art for the predetermined process of Hayashi in view of Shimizu to teach an image processing method wherein the predetermined process eliminates, from frequency characteristics of the image data, a frequency characteristic that is possibly confused with the information as taught by Macy et al. “...to partially remove noise contributed by the original image in order to further enhance detection reliability of the watermark”, Macy et al., column 9, line 44.

Response to Arguments

9. Applicant’s arguments filed on 6/11/2007 with respect to **claims 5, 6 – 9, 10, and 11 – 15** have been respectfully and fully considered, but they are not found persuasive.

Summary of Remarks regarding claim 5:

(i) Applicant argues that according to one embodiment of the present invention as recited in amended independent claim 5, ***the characteristics of the output means and the input means is specified based on model names of the output means and the input means*** (@ response page 7) – thus submitting that none of the cited references teaches or suggests the claimed feature or provides the corresponding benefit discussed above and putting claim 5 in condition for allowance along with dependents therefrom (@ response page 8).

(ii) Applicant argues that the proffered motivation to combine Miyake and Iwamura (in stating that it would have been obvious to combine Miyake and Iwamura “to precisely read the

Art Unit: 2624

dot information of the print...,” citing Miyake at paragraph 89, lines 4 and 5) does not mean that the ordinary artisan would have incorporated the step of altering a process for at least one of the output means and the input means of the image data. In addition, there is no evidence that the results achieved by combining the step of altering a process for at least one of the output means and the input means of the image data, e.g., to effectively reduce the possibility of degradation of the digital watermark, was “predictable.” Because of the lack of suggestion or motivation in the prior art to modify the reference, the first requirement of MPEP §2143 has not been met and, hence, a *prima facie* case of obviousness has not been established (@ response page 10).

Examiners Response:

(i) Though amended claim 5 read over the prior art due to the limitation of adding the characteristics of the output means and the input means being specified based on model names of the output means and the input means, it has been shown that Hayashi in view of Shimizu anticipate claim 5 as disclosed above. Though Hayashi teaches the characteristics of the output means and the input means being specified based on both the resolutions of the output means and the input means, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the characteristics based on resolutions as taught by Hayashi to disclose model names as taught by Shimizu. Shimizu teaches a direct correlation between model names and resolutions supported by the input and output means in its “device profile” as shown in FIG. 5 for the scanner and FIG. 6 for the printer, as one could easily associate the printer resolutions used the pattern arrangement determining unit element 0110 of Hayashi with just the actual printer model name as shown by Shimizu. The conjunction “**and**” between the input and output means is also supported by Hayashi in view of Shimizu as Hayashi discloses a direct correlation

Art Unit: 2624

between the resolution of the printer and the scanner in an example of a 1:1 ratio given in paragraph [0284] of Hayashi. The ratio supports the input of the printer resolution by element 0110 of Hayashi knowing there exists an equal resolution in the scanner element 0201 of Hayashi. In addition to this, it is obvious to one of ordinary skill in the art to have the one resolution of one means to be at least twice the other (for whichever is performing first) due to the Nyquist theorem – thus again resulting in dependency from one means to the other.

(ii) Amended independent claim 5 is anticipated Hayashi in view of Shimizu and thus any arguments with respect to motivation to combine Miyake and Iwamura under claim 5 and its dependents have been rendered moot (although it has been respectfully considered to inform the applicant the motivation behind Hayashi in view of Shimizu in detail). As shown above, though Hayashi teaches the characteristics of the output means and the input means being specified based on both the resolutions of the output means and the input means, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the characteristics based on resolutions as taught by Hayashi to use model names as taught by Shimizu "...to provide a data processing apparatus having an improved operability which can use a realizable function via a network as if the function is provided by a single device.", Shimizu, Col. 1, line 66 – Col. 2, line 2. Shimizu is clearly suggesting that a network with a plurality of electronic devices (of which could include a printer and scanner as disclosed by Hayashi) can improve operability using a realizable function as if the function is provided by a single device, along with the network including creating device profiles for each electronic device (element 206 of Shimizu). Each device profile (FIG. 5 for the scanner and FIG. 6 for the printer in Shimizu) consists a direct correlation between the model name for that particular

Art Unit: 2624

electronic device and its capable resolutions. Hayashi bases its method for adding information to image data off of the capable resolutions of its printer (**and** thus scanner as disclosed in paragraph [0284] of Hayashi), and it would have been obvious to one of ordinary skill in the art at the time the invention was made for the pattern arrangement determining unit element 0110 of Hayashi to use a model name instead as taught by the device profiles of Shimizu to improve operability in a network with a plurality of electronic devices. The first requirement of MPEP §2143 has been met and, hence, a *prima facie* case of obviousness has been established with Hayashi in view of Shimizu.

Summary of Remarks regarding claims 6 – 9:

(i) Applicant argues that since independent claim 5 is allowable, claims 6 – 9 are allowable by virtue of their direct/indirect dependence from allowable claim 5 and for containing other patentable features (@ response page 8).

(ii) Applicant argues that even if the first requirement of MPEP §2143 is satisfied, the third requirement of MPEP §2143 is not satisfied, since the cited references do not teach each and every element of the present invention.

Examiners Response:

(i) It has been shown above that amended independent claim 5 is anticipated by Hayashi in view of Shimizu and thus the dependent claims are not non-obvious and new.

(ii) The third requirement of MPEP §2143 (among the first two) are satisfied since it has been shown that the cited references above teach each and every element of the present invention.

Summary of Remarks regarding claim 10:

Applicant argues that new independent claim 10 is an apparatus claim directed to a device that practices the method of claim 5 and includes the same patentable feature discussed above. Thus, for substantially the same reasons advanced above with respect to independent claim 5, claim 10 is also allowable (@ response page 10).

Examiners Response:

For the same reasons given in claim 5, claim 10 is anticipated by Hayashi in view of Shimizu since claim 10 is an apparatus claim directed to a device that practices the method of claim 5 and includes the same features discussed above. Thus, claim 10 is not allowable with considerably the same reasons given above with respect to independent claim 5.

Summary of Remarks regarding claims 11 – 15:

Applicant argues that since independent claim 10 is allowable, claims 11 – 15 are allowable by virtue of their direct/indirect dependence from allowable claim 10 and for containing other patentable features (@ response page 10).

Examiners Response:

It has been shown above that amended independent claim 10 is anticipated by Hayashi in view of Shimizu and thus the dependent claims are not non-obvious and new.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David P. Rashid whose telephone number is (571) 270-1578. The examiner can normally be reached on 7:30 - 17:00.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David P. Rashid whose telephone number is (571) 270-1578. The examiner can normally be reached Monday - Friday 8:30 - 17:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Werner can be reached on (571) 272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2624

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David P. Rashid/
Examiner, Art Unit 2624

David P Rashid
Examiner
Art Unit 2624

/Brian P. Werner/
Supervisory Patent Examiner (SPE), Art Unit 2624